LPDES PERMIT NO. LA0005355 (Agency Interest No. 285)

LPDES FACT SHEET and RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

I. Company/Facility Name: ExxonMobil Chemical Company
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LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

IV. Permit Action/Status:

A. Reason For Permit Action:

Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46.

In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes

only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX. Chapter 11) will not have dual references.

B. LPDES permit: Permit effective date: March 1, 2003
Permit minor modification date: May 1, 2004
Permit expiration date: February 29, 2008

EPA has not retained enforcement authority.

C. Application submittal date: Application received on November 29, 2007, additional information submitted via email on November 7, 2008

V. Facility Information:

A. Location – 11675 Scotland Avenue, Baton Rouge, East Baton Rouge Parish (Latitude 30°32'57", Longitude 91°10'35").

B. Applicant Activity -

According to the application, the Baton Rouge Plastics Plant is a polymers manufacturing facility. The facility utilizes six production lines (A-F lines) to manufacture low-density polyethylene (LDPE) by polymerization of ethylene and various co-monomers and modifiers in a high-pressure process. The facility also uses one production line (G-line) to manufacture elastomer/plastomer products.

ExxonMobil is currently in the process of constructing the Baton Rouge Specialty Compounding Facility (BRSCC) which will be located within the existing Baton Rouge Logistics Center (BRLC), which is located on the western boundary of the Baton Rouge Plastics Plant. The combined facilities will be named the Baton Rouge Logistics and Compounding Facility (BRLCC). The proposed compounding facility will be used for blending various additives and pre-manufactured polymers. All operations will be conducted under roof. Wastewaters generated from the proposed BRSCC will be routed to the wastewater system's North Pond for discharge via the existing permitted process Outfall 001. Operation of the compounding facility will also result in the addition of two new stormwater outfalls due to the rail storage of significant materials along the south side of the BRLCC.

C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

Guidelines	Reference
Organic Chemicals, Plastics, and Synthetic Fibers	40 CFR 414, Subparts D and J
Rubber Manufacturing Solution Crumb Rubber Daily Production – 542,466 lbs	40 CFR 428, Subpart C

Other sources of technology based limits:

- LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)
- Best Professional Judgement
- Hydrostatic Test and Vessel Testing Wastewater General Permit (LAG670000)

D. Fee Rate -

1. Fee Rating Facility Type: Major
2. Complexity Type: VI
3. Wastewater Type: II
4. SIC code: 2821 and 2822

E. Continuous Facility Effluent Flow - 1.91 MGD (30-day max)

VI. Receiving Waters: Unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal (Outfalls 001, 004, 005 and 006); Cypress Bayou, thence to Comite River (Outfall 002); and Monte Sano Bayou (Outfall 003)

A. Unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal:

- TSS (15%), mg/L: 53.25 mg/l*
- Average Hardness, mg/L $CaCO_3$: 154 mg/l*
- Mixing Zone Fraction: 0 .19 *
- River Basin: Mississippi River, Segment No.: 070203
- Designated Uses: primary contact recreation, secondary contact recreation, and fish and wildlife propagation

* Stream data information based upon the following: Water Quality Management Plan, Volume 5A, 1994; LAC 33:IX Chapter 11. Hardness and 15% TSS data come from the monitoring station #318, located on the Mississippi River at the La. 10 ferry landing in St. Francisville listed in Hardness and TSS Data for All LDEQ Ambient Stations for the Period of Record as of March 1998, LeBlanc. During issuance of the previous permit, it was determined by the LDEQ Water Standards Division that the Baton Rouge Harbor Canal is classified as a tributary to the Mississippi River; therefore, it shall receive the same water quality criteria as the Mississippi River. In accordance with this determination, the hardness and TSS concentration values for the Mississippi River were used to calculate water quality numerical criteria for this permit. Also during issuance of the previous permit, a site specific mixing zone (MZ) and zone of initial dilution (ZID) were established. See Exhibit 3 of the November 2007 LPDES permit application to review the *Mixing zone analysis and determination of critical condition percent effluent concentration values for Louisiana surface water quality standards implementation.* This mixing zone determination was initially submitted during issuance of the previous permit and was based upon a 30-day max flow of 2.23 MGD. In the renewal permit application received on November 29, 2007, the critical dilution at the ZID and the effluent dilution at the edge of the MZ were recalculated based upon the facility's current 30-day max flow (1.91 MGD). The revised ZID and MZ are reflected in the water quality spreadsheet found in Appendix B of the fact sheet.

B. Monte Sano Bayou (Segment 070504 of the Mississippi River Basin)

- The designated uses are secondary contact recreation and limited aquatic life and wildlife use.

C. Cypress Bayou thence to the Comite River (Segment 040103 of the Lake Pontchartrain Basin)

- The designated uses are primary contact recreation, secondary contact recreation, and propagation of fish and wildlife.

VII. Outfall Information:

Outfall 001

A. Type of wastewater – The continuous discharge of treated process wastewater, process area stormwater, process area wash water (including that from the BRLCC), boiler blowdown and cooling tower blowdown, discharges from fire training activities, eyewash stations, safety showers, uncontaminated groundwater from monitoring activities, compressor condensate, steam condensate, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), and hydrostatic test water (not previously tested) and wash wastewater from the wastewater treatment facility

B. Location – At the point of discharge from the final effluent basin at the wastewater treatment system prior to combining with other waters from Outfall 004 and the waters of the unnamed drainage conveyance leading to the Baton Rouge Harbor Canal (Latitude 30°33'05", Longitude 91°10'55")

C. Treatment – Treatment of wastewater consists of:
- flotation (oil separation and plastics removal)
- pH adjustment

D. Flow – Continuous: 1.91 MGD (30-Day Max)

Contributing flows:

OCPSF Process Wastewater* -	0.56 MGD
OCPSF Process Area Stormwater*-	0.90 MGD
OCPSF Process Area Washwater*-	0.09 MGD
BRPP Cooling Tower Blowdown*-	0.1191 MGD
BRPP Boiler Blowdown* -	0.0068 MGD
BRLCC Washwater (OCSPF) -	0.012 MGD
G-Line Process Wastewater -	0.000279 MGD
G-Line Process Area Stormwater -	0.1957 MGD
G-Line Cooling Tower Blowdown -	0.0255 MGD
G-Line Boiler Blowdown -	0.0017 MGD
Miscellaneous Wastewaters** -	de minimis

* These wastewaters come from the A-F production lines

** Miscellaneous wastewaters consist of intermittent discharges from fire fighting activities, eyewash stations, safety showers, uncontaminated groundwater from monitoring activities, compressor condensate, steam condensate, general facility washwaters where no detergents are used and no spills of hazardous materials have occurred (unless all spilled material has been removed), hydrostatic test water (not previously tested), and wash wastewater from the wastewater treatment facility

E. Receiving waters – Unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal

F. Basin and segment – Mississippi River Basin, Segment 070203

G. Effluent data – See Appendix C

Outfall 002

A. Type of wastewater – The intermittent discharge of non-process area stormwater from the administration building area and employee parking lots, fire systems test water, discharges from fire training activities, eyewash stations, safety showers, uncontaminated groundwater from monitoring activities, incidental windblown mist from cooling towers (not including intentional discharges from piped cooling tower blowdown or drains), steam trap blowdown, steam condensate blowdown/overflow, compressor condensate, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously tested hydrostatic test water from Internal Outfall 105, once-through non-contact cooling water, and well water

B. Location – At the point of discharge from the eastern edge of the facility under the Illinois Central railroad tracks prior to combining with the waters of an unnamed ditch, thence to Cypress Bayou (Latitude 30°33'11", Longitude 91°10'32")

C. Treatment – None.

D. Flow – Intermittent and variable, estimated flow is 0.459 MGD

E. Receiving waters – Unnamed drainage, thence to Cypress Bayou, thence to Comite River

F. Basin and segment – Lake Pontchartrain Basin, Segment 040103

G. Effluent data – See Appendix C

Outfall 003

A. Type of wastewater – The intermittent discharge of non-process area stormwater and previously monitored hydrostatic test water from Internal Outfall 105.

B. Location – At the point of discharge from the southeast corner of the facility prior to combining with the waters of an unnamed drainage ditch, leading to Monte Sano Bayou (Latitude 30°32'37", Longitude 91°10'38")

C. Treatment – None

D. Flow – Intermittent and variable, estimated flow is 0.0872 MGD

E. Receiving waters – Monte Sano Bayou

F. Basin and segment – Mississippi River Basin, Segment 070504

G. Effluent data – See Appendix C

Outfall 004

A. Type of wastewater – The intermittent discharge of non-process area stormwater from areas surrounding the warehouses and outside the process area stormwater collection dikes and employee parking lots, fire systems test water, discharges from fire training activities, eyewash stations, safety showers, uncontaminated groundwater from monitoring activities, incidental windblown mist from cooling towers (not including intentional discharges from piped cooling tower blowdown or drains), steam trap blowdown, steam condensate blowdown/overflow, compressor condensate, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously tested hydrostatic test water from Internal Outfall 105, once-through non-contact cooling water, stormwater runoff from the employee parking lots, and well water

B. Location – At the point of discharge from the stormwater culvert located west of Outfall 001 before commingling with any water from Outfall 001 and prior to combining with the waters of the unnamed drainage ditch leading to the Baton Rouge Harbor Canal (Latitude 30°33'07", Longitude 91°10'55")

C. Treatment – None

D. Flow – Intermittent and variable, estimated flow is 0.456 MGD

E. Receiving waters – Unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal

F. Basin and segment – Mississippi River Basin, Segment 070203

G. Effluent data – See Appendix C

Outfall 005

A. Type of wastewater – The intermittent discharge of non-process area stormwater, fire systems test water, eyewash stations, safety showers, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously monitored hydrostatic test water from Internal Outfall 105, stormwater runoff from the employee parking lots, and once-through non-contact cooling water

B. Location – At the point of discharge from the center of the south perimeter of the BRLCC prior to combining with the waters of the unnamed drainage ditch leading to the Baton Rouge Harbor Canal (Latitude 30°33'01", Longitude 91°11'22")

C. Treatment – None

D. Flow – Intermittent and variable, estimated flow is 0.1489 MGD

E. Receiving waters – Unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal

F. Basin and segment – Mississippi River Basin, Segment 070203

G. Effluent data – See Appendix C

Outfall 006

A. Type of wastewater – The intermittent discharge of non-process area stormwater, fire systems test water, eyewash stations, safety showers, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously monitored hydrostatic test water from Internal Outfall 105, stormwater runoff from the employee parking lots, and once-through non-contact cooling water

B. Location – At the point of discharge from the southwest corner of the BRLCC prior to combining with the waters of the unnamed drainage ditch leading to the Baton Rouge Harbor Canal (Latitude 30°33'05", Longitude 91°11'08")

C. Treatment – None

D. Flow – Intermittent and variable, estimated flow is 0.2547 MGD

E. Receiving waters – Unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal

F. Basin and segment – Mississippi River Basin, Segment 070203

G. Effluent data – See Appendix C

Internal Outfall 105

A. Type of wastewater – The intermittent discharge of hydrostatic test waters

B. Location – At the point of discharge from the vessel or pipe being tested prior to mixing with the waters of Outfalls 002, 003, 004, 005 and 006

C. Treatment – None

D. Flow – Intermittent flow is variable

E. Receiving waters –
- Discharge via either Outfalls 004, 005 or 006 - Unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal

- Discharge via Outfall 002 – Unnamed drainage, thence to Cypress Bayou, thence to Comite River

- Discharge via Outfall 003 - Monte Sano Bayou

F. Basin and segment –
- Discharge via Outfalls 004, 005 or 006 – 070203 (Mississippi River Basin)
- Discharge via Outfall 002 – 040103 (Lake Pontchartrain Basin)
- Discharge via Outfall 003 – 070504 (Mississippi River Basin)

VIII. Proposed Permit Limits and Rationale:

The specific effluent limitations and/or conditions will be found in the draft permit. Development and calculation of permit limits are detailed in the Permit Limit Rationale section below.

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. PERMIT CHANGES

1. Outfall 001 – Mass limitations have decreased based upon new flow information provided in the November 29, 2007 application.

2. Outfall 001 – The biomonitoring dilution series has changed based upon new flow information.

3. Outfalls 005 and 006 – These outfalls have been added to the permit as a result of construction of the BRLCC.

4. Outfall 001 – COD monitoring has been reduced to 1/ 2 months in accordance with the USEPA Memorandum "Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies".

5. Outfall 001 – Total lead monitoring has been added to the permit (report only) due to the receiving stream's 303(d) status.

B. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b/40 CFR Part 122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A/40 CFR Part 122.44(a) or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D/40 CFR Part 122.44(d), whichever are more stringent.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. The following is a rationale for the limitations established in the permit.

ExxonMobil Chemical Company is subject to Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines listed below:

Manufacturing Operation	Guideline
Organic Chemicals, Plastics, and Synthetic Fibers	40 CFR 414, Subparts D and J
Rubber Manufacturing Solution Crumb Rubber	40 CFR 428, Subpart C

WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limitations by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008.
In accordance with 40 CFR 122.44(d)(I)/LAC 33:IX.2707.D.1., the existing discharge was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard." Calculations, results, and documentation are given in Appendix B.

The following pollutants received water quality based effluent limitations:

Carbon Tetrachloride
1,2-Dichloroethane (EDC)
1,1-Dichloroethylene
Tetrachloroethylene
1,1,2-Trichloroethane (maximum only)
Hexachlorobenzene
Hexachlorobutadiene

Minimum quantification levels (MQLs) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. They are also listed in Part II of the permit.

To further ensure compliance with 40 CFR 122.44(d)(I), whole effluent toxicity testing has been established for Outfall 001 (See Section VIII.E below).

C. PROPOSED EFFLUENT LIMITATIONS

Outfall 001 – The continuous discharge of treated process wastewater, process area stormwater, process area wash water (including that from the BRLCC), boiler blowdown and cooling tower blowdown, discharges from fire training activities, eyewash stations, safety showers, uncontaminated groundwater from monitoring activities, compressor condensate, steam condensate, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), and hydrostatic test water (not previously tested) and wash wastewater from the wastewater treatment facility

Parameter	Monthly Avg. (lbs/day)	Daily Max. (lbs/day)	Frequency	Sample Type
Flow-MGD	Report	Report	Continuous	Recorder
pH Range Excursions (Continuous Monitoring), Number of Events >60 Minutes	---	0(*1)	Continuous	Recorder
pH Range Excursions (Continuous Monitoring), Monthly Total Accumulated Time in Minutes	---	446(*1)	Continuous	Recorder
pH Min/Max Values (Standard Units)	Report (Min)	Report (Max)	Continuous	Recorder
BOD_5	537	1180	1/week	24-hr. Composite
TSS	886	2267	1/week	24-hr. Composite
COD	2201	3838	1/ 2 months	24-hr. Composite
Oil & Grease	230	345	1/week	Grab
METALS				
Total Lead	Report (mg/l)	Report (mg/l)	1/quarter	24-hr. Composite
VOLATILE COMPOUNDS				
Acrylonitrile	1.22	3.02	1/year	24-hr. Composite
Benzene	0.74	1.75	1/year	24-hr. Composite
Carbon Tetrachloride	0.10	0.24	1/year	24-hr. Composite
Chlorobenzene	1.85	4.95	1/year	24-hr. Composite
Chloroethane	1.43	3.84	1/year	24-hr. Composite
Chloroform	1.45	4.23	1/year	24-hr. Composite
1,1-Dichloroethane	0.29	0.77	1/year	24-hr. Composite
1,2-Dichloroethane	0.57	1.36	1/year	24-hr. Composite
1,1-Dichloroethylene	0.049	0.116	1/year	24-hr. Composite
1,2-trans-Dichloroethylene	0.33	0.86	1/year	24-hr. Composite
1,2-Dichloropropane	2.55	10.34	1/year	24-hr. Composite
1,3-Dichloropropylene	2.55	10.34	1/year	24-hr. Composite
Ethylbenzene	1.85	4.95	1/year	24-hr. Composite
Methyl Chloride	1.43	3.84	1/year	24-hr. Composite
Methylene Chloride	0.47	2.21	1/year	24-hr. Composite
Tetrachloroethylene	0.21	0.50	1/year	24-hr. Composite

Toluene	0.36	0.96	1/year	24-hr. Composite
1,1,1-Trichloroethane	0.29	0.77	1/year	24-hr. Composite
1,1,2-Trichloroethane	0.42	1.38	1/year	24-hr. Composite
Trichloroethylene	0.34	0.90	1/year	24-hr. Composite
Vinyl Chloride	1.26	2.24	1/year	24-hr. Composite
ACID COMPOUNDS				
2,4-Dimethylphenol	0.25	0.61	1/year	24-hr. Composite
4,6-Dinitro-o-Cresol	1.02	3.61	1/year	24-hr. Composite
2,4-Dinitrophenol	15.72	55.90	1/year	24-hr. Composite
2-Nitrophenol	0.85	3.01	1/year	24-hr. Composite
4-Nitrophenol	2.11	7.50	1/year	24-hr. Composite
Phenol	0.25	0.61	1/year	24-hr. Composite
BASE NEUTRAL COMPOUNDS				
Acenaphthene	0.25	0.61	1/year	24-hr. Composite
Acenaphthylene	0.25	0.61	1/year	24-hr. Composite
Anthracene	0.25	0.61	1/year	24-hr. Composite
Benzo(a)anthracene	0.25	0.61	1/year	24-hr. Composite
Benzo(a)pyrene	0.26	0.63	1/year	24-hr. Composite
3,4-Benzofluoranthene	0.26	0.63	1/year	24-hr. Composite
Benzo(k)fluoranthene	0.25	0.61	1/year	24-hr. Composite
Bis(2-ethylhexyl) phthalate	1.24	3.36	1/year	24-hr. Composite
Chrysene	0.25	0.61	1/year	24-hr. Composite
1,2-Dichlorobenzene	2.55	10.34	1/year	24-hr. Composite
1,3-Dichlorobenzene	1.85	4.95	1/year	24-hr. Composite
1,4-Dichlorobenzene	1.85	4.95	1/year	24-hr. Composite
Diethyl phthalate	0.60	1.47	1/year	24-hr. Composite
Dimethyl phthalate	0.25	0.61	1/year	24-hr. Composite
Di-n-butyl phthalate	0.26	0.56	1/year	24-hr. Composite
Fluoranthene	0.29	0.70	1/year	24-hr. Composite
Fluorene	0.25	0.61	1/year	24-hr. Composite
Hexachlorobenzene	0.00002	0.00005	1/year	24-hr. Composite
Hexachlorobutadiene	0.009	0.022	1/year	24-hr. Composite
Hexachloroethane	2.55	10.34	1/year	24-hr. Composite
Naphthalene	0.25	0.61	1/year	24-hr. Composite
Nitrobenzene	29.14	83.40	1/year	24-hr. Composite
Phenanthrene	0.25	0.61	1/year	24-hr. Composite
Pyrene	0.26	0.63	1/year	24-hr. Composite
1,2,4-Trichlorobenzene	2.55	10.34	1/year	24-hr. Composite
Whole Effluent Toxicity Testing	---	---	1/quarter	24 hr. Composite

(*1) The pH shall be within the range of 6.0 – 9.0 standard units at all times subject to continuous monitoring pH range excursion provisions. Where a permittee continuously measures the pH of wastewater as a requirement or option in an LPDES permit, the permittee shall maintain the pH of such wastewater within the range set forth in the permit, except that excursions from the range are permitted, provided:

1. The total time during which the pH values are outside the required range of pH values shall not exceed 446 minutes in any calendar month; and
2. No individual excursion from the range of pH values shall exceed 60 minutes.

EFFLUENT LIMITATIONS BASIS for Outfall 001:

Flow: The requirement to report flow is based upon LAC 33:IX.2707.I.1.b. and the previous permit.

BOD_5, TSS, toxic organics and pH: Limitations are based upon a combination of 40 CFR 414 (Subparts D and J); 40 CFR 428 (Subpart C) and BPJ. See Site-Specific Considerations below and Appendix A for more detail on calculation of the limitations. Limitations for Carbon Tetrachloride, 1,2-Dichloroethane (EDC), 1,1-Dichloroethylene, Tetrachloroethylene, 1,1,2-Trichloroethane (maximum only), Hexachlorobenzene and Hexachlorobutadiene are based upon water quality (See Appendix B).

COD and Oil & Grease: Mass limitations in the permit were based upon a combination of 40 CFR 428 (Subpart C) and BPJ. See Site-Specific Considerations below and Appendix A for more information on calculation of the limitations.

Total Lead: Monitoring requirements for Total Lead have been added due to the receiving waterbody's impairment for Lead.

Whole Effluent Toxicity Testing: See Section E below for justification of requirements.

SITE-SPECIFIC CONSIDERATIONS:

As established in the previous permit, the draft permit establishes BPJ allocations for BOD and TSS loadings for utility wastewaters that are included as part of the process wastewater stream discharged at Outfall 001. For the utility wastewaters, BOD_5 allowances grant an average concentration of 6 mg/L, and a maximum concentration of 16 mg/L; TSS allowances grant an average concentration of 10 mg/L, and a maximum concentration of 32.5 mg/L.

In addition to the COD and Oil & Grease loadings calculated in accordance with 40 CFR 428 Subpart C (for G-line operations), additional COD and Oil & Grease loadings were established based upon BPJ for the OCPSF process flow and the utility flows. The additional COD allowances grant an average concentration of 75 mg/L, and a maximum concentration of 150 mg/L. The additional Oil & Grease allowances grant an average concentration of 10 mg/L, and a maximum concentration of 15 mg/L.

The BPJ concentrations for BOD, TSS, COD and Oil & Grease were established in the facility's previous permit and have been determined as BAT. Therefore, these limitations have been retained in the draft permit. See Appendix A for detail on the mass calculation of these limitations.

Outfall 002 - The intermittent discharge of non-process area stormwater from the administration building area and employee parking lots, fire systems test water, discharges from fire training activities, eyewash stations, safety showers, uncontaminated groundwater from monitoring activities, incidental windblown mist from cooling towers (not including intentional discharges from piped cooling tower blowdown or drains), steam trap blowdown, steam condensate blowdown/overflow, compressor condensate, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously tested hydrostatic test water from Internal Outfall 105, once-through non-contact cooling water, and well water

Outfall 003 - The intermittent discharge of non-process area stormwater and previously monitored hydrostatic test water from Internal Outfall 105

Outfall 004 - The intermittent discharge of non-process area stormwater from areas surrounding the warehouses and outside the process area stormwater collection dikes and employee parking lots, fire systems test water, discharges from fire training activities, eyewash stations, safety showers, uncontaminated groundwater from monitoring activities, incidental windblown mist from cooling towers (not including intentional discharges from piped cooling tower blowdown or drains), steam trap blowdown, steam condensate blowdown/overflow, compressor condensate, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously tested hydrostatic test water from Internal Outfall 105, once-through non-contact cooling water, and well water

Outfall 005 - The intermittent discharge of non-process area stormwater, fire systems test water, eyewash stations, safety showers, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously monitored hydrostatic test water from Internal Outfall 105, and once-through non-contact cooling water

Outfall 006 - The intermittent discharge of non-process area stormwater, fire systems test water, eyewash stations, safety showers, general facility washwaters where no detergents are used and no spills or leaks of hazardous materials have occurred (unless all spilled material has been removed), previously monitored hydrostatic test water from Internal Outfall 105, and once-through non-contact cooling water

Parameter	Monthly Avg. (mg/l)	Daily Max. (mg/l)	Frequency	Sample Type
Flow-MGD	Report	Report	1/quarter	Estimate
TOC	---	50	1/quarter	Grab
Oil & Grease	---	15	1/quarter	Grab
pH Min/Max Values (Standard Units)	6.0 (Min)	9.0 (Max)	1/quarter	Grab

EFFLUENT LIMITATIONS BASIS for Outfalls 002, 003, 004, 005 and 006:

Flow: The requirement to report flow is based upon LAC 33:IX.2707.I.1.b.

TOC and Oil & Grease: Limitations are based upon the previous permit and LDEQ's stormwater guidance [letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)].

pH: Requirements are based upon the previous permit and LAC 33:IX.1113.C.1.

OUTFALL 105 - Hydrostatic test wastewater

Parameter	Monthly Avg. (mg/l)	Daily Max. (mg/l)	Frequency	Sample Type
Flow-MGD	Report	Report	1/discharge	Estimate
TSS (*1 & 2)	---	90	1/discharge	Grab
Oil & Grease (*2)	---	15	1/discharge	Grab
TOC (*2)	---	50	1/discharge	Grab
Benzene (*2)	---	50 µg/l	1/discharge	Grab
Total BTEX (*2 & 3)	---	250 µg/l	1/discharge	Grab
Total Lead (*2)	---	50 µg/l	1/discharge	Grab
pH (standard units)	6.0 (min)	9.0 (max)	1/discharge	Grab

(*1) Report the TSS concentration of the intake water on the DMR along with the concentration of TSS in the effluent, if the effluent is being returned to the same water source from which the intake water was obtained. In these cases, the net value shall not exceed 90 mg/L. Concurrent sampling of the influent and the effluent is required.

(*2) Flow, TSS, Oil & Grease, and pH shall be measured on discharges from all new and existing pipelines, flowlines, vessels or tanks. In addition, Total Organic Carbon (TOC) shall be measured on discharges from existing pipelines, flowlines, vessels, or tanks which have previously been in service; (i.e., those which are not new). Benzene, Total BTEX, and Total Lead shall be measured on discharges from existing pipelines, flowlines, vessels, or tanks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons.

(*3) BTEX shall be measured as the sum of benzene, toluene, ethylbenzene, ortho-xylene, and para-xylene as quantified using the methods prescribed by the latest approved 40 CFR 136, Tables, A-G.

EFFLUENT LIMITATIONS BASIS for Outfall 105:

Flow: The requirement to report flow is based upon LAC 33:IX.2707.I.1.b.

TSS, TOC, Oil & Grease, Benzene, Total BTEX, Total Lead and pH: Limitations are based upon the previous permit and the Hydrostatic Test and Vessel Testing Wastewater General Permit (LAG670000)

D. MONITORING FREQUENCIES

All monitoring frequencies are based upon the previous permit (with exception of COD monitoring at Outfall 001). This Office has reduced the monitoring frequency for COD (at Outfall 001) from 1/week to 1/ 2 months in accordance with the USEPA Memorandum "Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies." Whole Effluent Toxicity testing frequency is based upon recommendations from the Municipal and General Water Permits Section (see Appendix D).

E. BIOMONITORING REQUIREMENTS

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 001 are as follows:

TOXICITY TESTS	FREQUENCY*
NOEC, Pass/Fail [0/1], Lethality, Static Renewal, 7-Day Chronic, Pimephales promelas	1/3 months
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, Pimephales promelas	1/3 months

NOEC, Value [%], Growth, Static Renewal, 7-Day Chronic, Pimephales promelas	1/3 months
NOEC, Pass/Fail [0/1], Growth, Static Renewal, 7-Day Chronic, Pimephales promelas	1/3 months
NOEC, Value [%], Coefficient of Variation, Static Renewal, 7-Day Chronic, Pimephales promelas	1/3 months
NOEC, Pass/Fail [0/1], Lethality, Static Renewal 7-Day Chronic, Ceriodaphnia dubia	1/3 months
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic Ceriodaphnia dubia	1/3 months
NOEC, Value [%], Reproduction, Static Renewal, 7-Day Chronic, Ceriodaphnia dubia	1/3 months
NOEC, Pass/Fail [0/1], Reproduction, Static Renewal 7-Day Chronic, Ceriodaphnia dubia	1/3 months
NOEC, Value [%], Coefficient of Variation, Static Renewal, 7-Day Chronic Ceriodaphnia dubia	1/3 months

* Upon successfully passing the first four quarters of WET testing after permit reissuance and in the absence of subsequent lethal and/or sublethal toxicity for one or both test species at or below the critical dilution, the permittee may apply for a testing frequency reduction. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the Pimephales promelas and not less than once per six months for the Ceriodaphnia dubia.

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to this Office. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40 CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. The additional effluent concentrations shall be 8%, 11%, 14%, 19%, and 25% effluent. The biomonitoring critical dilution is defined as 19% effluent.

IX. Compliance History/DMR Review:

Enforcement Review

ExxonMobil was issued a Compliance Order (WE-C-02-0545) on August 26, 2002. The relevant violations of the order were failure to report sample results and effluent violations.

The facility was issued a Multi-media Consolidated Compliance Order and Notice of Potential Penalty on May 25, 2005. Relevant violations of the order include the following:

- Failure to submit a properly completed DMR,
- Failure to properly complete a chain of custody form,
- Failure to properly report all samples on a DMR,
- Failure to sample in accordance with their permit,
- Failure to maintain proper calibration records,
- Failure to maintain accurate records (regarding sample collection forms),
- Failure to calibrate their thermometer in the sample refrigerator against an NIST certified thermometer, and
- Failure of quarterly toxicity test for the 1st quarter of 2004.

At the facility's last annual inspection (1/30/2008), no violations were noted and all areas evaluated during the inspection appeared to be satisfactory. No excursions have been reported by the facility in the past two years and enforcement is currently conducting a file review to determine if closure of the orders is appropriate. This Office has determined that the applicant's history of environmental violations is adequately addressed by the effluent limitations and permit conditions contained within the draft LPDES permit.

DMR Review (excursions for the period January 2006 - August 2008):

There were no excursions reported.

X. Endangered Species:

The receiving waterbodies for ExxonMobil Chemical Plant are Subsegments 070203, 070504 of the Mississippi River Basin, and Subsegment 040103 of the Lake Pontchartrain Basin. Subsegment 040103 of the Lake Pontchartrain Basin has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Gulf Sturgeon, which is listed as a threatened or endangered species. This draft permit has been submitted to the FWS for review in accordance with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, LDEQ has made a preliminary determination that the issuance of the LPDES permit is not likely to have an adverse effect upon the Gulf Sturgeon. However, after consultation with the FWS, the LDEQ may choose to modify

this permit based on information provided by the FWS. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

XI. Historic Sites:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

XII. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharges described in the application.

XIII. Variances:

No requests for variances have been received by this Office.

XIV. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

A public notice will be published in a local newspaper of general circulation and in the Office of Environmental Services Public Notice Mailing List.

XV. TMDL Waterbodies:

ExxonMobil Chemical Company discharges process wastewaters, utility wastewaters, process area stormwater, miscellaneous wastewaters and process area washdown water to unnamed drainage, thence to Fortune Bayou, thence to Baton Rouge Harbor Canal (Segment 070203). The

facility also discharges nonprocess area stormwater runoff and miscellaneous wastewaters to Segment 070504 and Segment 040103.

Segment 070203 is listed on LDEQ's Final 2006 303(d) List, as impaired for Lead, Nitrate/nitrite and organic enrichment/low DO, pathogen indicators, turbidity and phosphorus. The facility does not discharge sanitary wastewaters to the receiving water; therefore, it has been determined that the discharges are not expected to cause or contribute to the segment's pathogen indicators or organic enrichment impairments. Further, due to the nature of the discharges, it is not anticipated that nitrate/nitrite, phosphorus or turbidity will be discharged from the facility at levels that will cause or contribute to further impairment of the stream. However, limitations for BOD and TSS have been established in the permit based upon federal effluent guidelines and best professional judgement. The permit has also established reporting requirements for Total Lead at Outfall 001, due to the segment's lead impairment. It is anticipated that the data collected for BOD, TSS and Total Lead may be used for future TMDL development.

Segment 040103 is listed on LDEQ's Final 2006 303(d) List, as impaired for pathogen indictors. The facility does not discharge sanitary wastewaters to the receiving water; therefore, it has been determined that the discharges are not expected to cause or contribute to the segment's pathogen indicators impairment. No additional limitations have been established in the permit.

Segment 070504 is listed on LDEQ's Final 2006 303(d) List, as impaired for dissolved oxygen and chlorine. Because the discharges to Segment 070504 consist soley of low contamination potential stormwater and hydrostatic test water, it has been determined that the discharges are not expected to cause or contribute to further impairment of the stream. No additional limitations have been established in the permit.

A reopener clause will be included in the permit to allow for the establishment of more stringent effluent limitations and requirements as imposed by any future TMDLs.

XVI. Stormwater Pollution Prevention Plan (SWP3) Requirements:

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. For first time permit issuance, the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. For renewal permit issuance, the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management

Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].